

What is claimed is:

1. An isolated antibody, comprising either

a) a light chain variable domain comprising an amino acid sequence selected from the group consisting of:

- i) a sequence at least 80% identical to a sequence selected from the group consisting of SEQ ID NO:4, 6, 8, 10, 12, and 14,
- ii) a sequence of at least 15 contiguous amino acids of a sequence selected from the group consisting of SEQ ID NO:4, 6, 8, 10, 12, and 14,
- iii) a sequence that is encoded by a nucleotide sequence that is at least 80% identical to a nucleotide sequence selected from the group consisting of SEQ ID NO:3, 5, 7, 9, 11, and 13, and
- iv) a sequence that is encoded by a nucleotide sequence that hybridizes under moderately stringent conditions to the complement of a nucleotide sequence selected from the group consisting of SEQ ID NO:3, 5, 7, 9, 11, and 13,

or

b) a heavy chain variable domain comprising an amino acid sequence selected from the group consisting of:

- i) a sequence at least 80% identical to a sequence selected from the group consisting of SEQ ID NO:16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, and 62,
- ii) a sequence of at least 15 contiguous amino acids of a sequence selected from the group consisting of SEQ ID NO:16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, and 62,
- iii) a sequence that is encoded by a nucleotide sequence that is at least 80% identical to a nucleotide sequence selected from the group consisting of SEQ ID NO:15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, and 61, and
- iv) a sequence that is encoded by a nucleotide sequence that hybridizes under moderately stringent conditions to the complement of a nucleotide sequence selected from the group consisting of SEQ ID NO:15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, and 61,

or

c) said light chain variable domain of a) and said heavy chain variable domain of b),

with the proviso that said antibody does not comprise both the light chain variable domain amino acid sequence of SEQ ID NO:4, SEQ ID NO:63, SEQ ID NO:65, SEQ ID NO:67, or SEQ ID NO:69, and the heavy chain variable domain amino acid sequence of SEQ ID NO:16, SEQ ID NO:64, SEQ ID NO:66, or SEQ ID NO:68,

and wherein said antibody binds to the human IL-4 receptor.

2. The antibody of Claim 1, comprising either

a) a light chain variable domain comprising an amino acid sequence selected from the group consisting of:

- i) a sequence at least 85% identical to a sequence selected from the group consisting of SEQ ID NO:4, 6, 8, 10, 12, and 14,
- ii) a sequence of at least 25 contiguous amino acids of a sequence selected from the group consisting of SEQ ID NO:4, 6, 8, 10, 12, and 14,
- iii) a sequence that is encoded by a nucleotide sequence that is at least 85% identical to a nucleotide sequence selected from the group consisting of SEQ ID NO:3, 5, 7, 9, 11, and 13, and
- iv) a sequence that is encoded by a nucleotide sequence that hybridizes under stringent conditions to the complement of a nucleotide sequence selected from the group consisting of SEQ ID NO:3, 5, 7, 9, 11, and 13,

or

b) a heavy chain variable domain comprising an amino acid sequence selected from the group consisting of:

- i) a sequence at least 85% identical to a sequence selected from the group consisting of SEQ ID NO:16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, and 62,
- ii) a sequence of at least 25 contiguous amino acids of a sequence selected from the group consisting of SEQ ID NO:16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, and 62,
- iii) a sequence that is encoded by a nucleotide sequence that is at least 85% identical to a nucleotide sequence selected from the group consisting of SEQ ID NO:15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, and 61, and
- iv) a sequence that is encoded by a nucleotide sequence that hybridizes under stringent conditions to the complement of a nucleotide sequence selected from the group consisting of SEQ ID NO:15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, and 61,

or

c) said light chain variable domain of a) and said heavy chain variable domain of b).

3. The antibody of Claim 2, comprising either

a) a light chain variable domain comprising an amino acid sequence selected from the group consisting of:

- i) a sequence at least 90% identical to a sequence selected from the group consisting of SEQ ID NO:4, 6, 8, 10, 12, and 14,
- ii) a sequence of at least 35 contiguous amino acids of a sequence selected from the group consisting of SEQ ID NO:4, 6, 8, 10, 12, and 14, and

iii) a sequence that is encoded by a nucleotide sequence that is at least 90% identical to a nucleotide sequence selected from the group consisting of SEQ ID NO:3, 5, 7, 9, 11, and 13,

or

b) a heavy chain variable domain comprising an amino acid sequence selected from the group consisting of:

i) a sequence at least 90% identical to a sequence selected from the group consisting of SEQ ID NO:16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, and 62,

ii) a sequence of at least 35 contiguous amino acids of a sequence selected from the group consisting of SEQ ID NO:16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, and 62, and

iii) a sequence that is encoded by a nucleotide sequence that is at least 90% identical to a nucleotide sequence selected from the group consisting of SEQ ID NO:15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, and 61,

or

c) said light chain variable domain of a) and said heavy chain variable domain of b).

4. The antibody of Claim 3, comprising either

a) a light chain variable domain comprising an amino acid sequence selected from the group consisting of:

i) a sequence at least 95% identical to a sequence selected from the group consisting of SEQ ID NO:4, 6, 8, 10, 12, and 14,

ii) a sequence of at least 50 contiguous amino acids of a sequence selected from the group consisting of SEQ ID NO:4, 6, 8, 10, 12, and 14, and

iii) a sequence that is encoded by a nucleotide sequence that is at least 95% identical to a nucleotide sequence selected from the group consisting of SEQ ID NO:3, 5, 7, 9, 11, and 13,

or

b) a heavy chain variable domain comprising an amino acid sequence selected from the group consisting of:

i) a sequence at least 95% identical to a sequence selected from the group consisting of SEQ ID NO:16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, and 62,

ii) a sequence of at least 50 contiguous amino acids of a sequence selected from the group consisting of SEQ ID NO:16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, and 62, and

iii) a sequence that is encoded by a nucleotide sequence that is at least 95% identical to a nucleotide sequence selected from the group consisting of SEQ ID NO:15, 17,

19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, and 61,

or

c) said light chain variable domain of a) and said heavy chain variable domain of b).

5. The antibody of Claim 4, comprising either

a) a light chain variable domain comprising an amino acid sequence selected from the group consisting of:

- i) a sequence at least 97% identical to a sequence selected from the group consisting of SEQ ID NO:4, 6, 8, 10, 12, and 14,
- ii) a sequence of at least 70 contiguous amino acids of a sequence selected from the group consisting of SEQ ID NO:4, 6, 8, 10, 12, and 14, and
- iii) a sequence that is encoded by a nucleotide sequence that is at least 97% identical to a nucleotide sequence selected from the group consisting of SEQ ID NO:3, 5, 7, 9, 11, and 13,

or

b) a heavy chain variable domain comprising an amino acid sequence selected from the group consisting of:

- i) a sequence at least 97% identical to a sequence selected from the group consisting of SEQ ID NO:16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, and 62,
- ii) a sequence of at least 70 contiguous amino acids of a sequence selected from the group consisting of SEQ ID NO:16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, and 62, and
- iii) a sequence that is encoded by a nucleotide sequence that is at least 97% identical to a nucleotide sequence selected from the group consisting of SEQ ID NO:15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, and 61,

or

c) said light chain variable domain of a) and said heavy chain variable domain of b).

6. The antibody of Claim 5, comprising either

a) a light chain variable domain comprising an amino acid sequence selected from the group consisting of:

- i) a sequence at least 99% identical to a sequence selected from the group consisting of SEQ ID NO:4, 6, 8, 10, 12, and 14,
- ii) a sequence of at least 90 contiguous amino acids of a sequence selected from the group consisting of SEQ ID NO:4, 6, 8, 10, 12, and 14, and
- iii) a sequence that is encoded by a nucleotide sequence that is at least 99% identical to a nucleotide sequence selected from the group consisting of SEQ ID NO:3, 5, 7, 9, 11, and 13,

or

b) a heavy chain variable domain comprising an amino acid sequence selected from the group consisting of:

- i) a sequence at least 99% identical to a sequence selected from the group consisting of SEQ ID NO:16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, and 62,
- ii) a sequence of at least 90 contiguous amino acids of a sequence selected from the group consisting of SEQ ID NO:16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, and 62, and
- iii) a sequence that is encoded by a nucleotide sequence that is at least 99% identical to a nucleotide sequence selected from the group consisting of SEQ ID NO:15, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, and 61,

or

c) said light chain variable domain of a) and said heavy chain variable domain of b).

7. The antibody of Claim 6, comprising either  
a) a light chain variable domain comprising an amino acid sequence selected from the group consisting of SEQ ID NO:4, 6, 8, 10, 12, and 14,

or

b) a heavy chain variable domain comprising an amino acid sequence selected from the group consisting of SEQ ID NO:16, 18, 20, 22, 24, 26, 28, 30, 32, 34, 36, 38, 40, 42, 44, 46, 48, 50, 52, 54, 56, 58, 60, and 62,

or

c) said light chain variable domain of a) and said heavy chain variable domain of b).

8. The antibody of Claim 1 comprising either

a) a light chain variable domain comprising an amino acid sequence that differs from SEQ ID NO:4 by at least one amino acid substitution selected from the group consisting of S28T, S30N, S30G, S31N, S32D, S32N, A52T, S54Y, T57P, T57S, G93D, S94H, S94R, P96A, P97G, and T99M,

or

b) a heavy chain variable domain comprising an amino acid sequence that differs from SEQ ID NO:16 by at least one amino acid substitution selected from the group consisting of N58S, Y101W, F102Y, D103T, D103N, D103P, Y104H, Y104N, Y104W, and Y104R, and T99M

or

c) said light chain variable domain of a) and said heavy chain variable domain of b).

9. The antibody of Claim 1 comprising either
- a) a light chain variable domain comprising a sequence of amino acids that differs from SEQ ID NO:4 only by:
    - i) at least one amino acid substitution selected from the group consisting of S28T, S30N, S30G, S31N, S32D, S32N, A52T, S54Y, T57P, T57S, G93D, S94H, S94R, P96A, P97G, and T99M, and
    - ii) at least one amino acid substitution selected from the group consisting of E1D, L4M, S7T, G9A, K40R, F50Y, S68F, S77T, V86I, K105R, V106L, and E107D,or
  - b) a heavy chain variable domain comprising a sequence of amino acids that differs from SEQ ID NO:16 only by:
    - i) at least one amino acid substitution selected from the group consisting of N58S, Y101W, F102Y, D103T, D103N, D103P, Y104H, Y104N, Y104W, and Y104R, and
    - ii) at least one amino acid substitution selected from the group consisting of Q6E, H13Q, G24A, R86S, and M90T,or
  - c) the light chain variable domain of a) and the heavy chain variable domain of b).
10. The antibody of Claim 1, wherein:
- a. the light chain CDR1 comprises a sequence selected from the group consisting of residues 24-35 of SEQ ID NO:6, residues 24-35 of SEQ ID NO:8, residues 24-35 of SEQ ID NO:10, residues 24-35 of SEQ ID NO:12; and residues 24-35 of SEQ ID NO:14, or
  - b. the light chain CDR2 comprises a sequence selected from the group consisting of residues 51-57 of SEQ ID NO:4, residues 51-57 of SEQ ID NO:6, residues 51-57 of SEQ ID NO:10, and residues 51-57 of SEQ ID NO:12, or
  - c. the light chain CDR3 comprises a sequence selected from the group consisting of residues 90-99 of SEQ ID NO:4, residues 90-99 of SEQ ID NO:6, residues 90-99 of SEQ ID NO:8, and residues 90-99 of SEQ ID NO:14, or
  - d. the heavy chain CDR1 comprises the sequence residues 31-35 of SEQ ID NO:16, or
  - e. the heavy chain CDR2 comprises a sequence selected from the group consisting of residues 50-65 of SEQ ID NO:16, and residues 50-65 of SEQ ID NO:18, or
  - f. the heavy chain CDR3 comprises a sequence selected from the group consisting of residues 90-99 of SEQ ID NO:4, residues 98-104 of SEQ ID NO:18, residues 98-104 of SEQ ID NO:20, residues 98-104 of SEQ ID NO:22, residues 98-104 of SEQ ID NO:24, residues 98-104 of SEQ ID NO:26, residues 98-104 of SEQ ID NO:30, and residues 98-104 of SEQ ID NO:34.

11. The antibody of Claim 10, wherein:

- a. the light chain CDR1 comprises a sequence selected from the group consisting of residues 24-35 of SEQ ID NO:6, residues 24-35 of SEQ ID NO:8, residues 24-35 of SEQ ID NO:10, residues 24-35 of SEQ ID NO:12; and residues 24-35 of SEQ ID NO:14, and
- b. the light chain CDR2 comprises a sequence selected from the group consisting of residues 51-57 of SEQ ID NO:4, residues 51-57 of SEQ ID NO:6, residues 51-57 of SEQ ID NO:10, and residues 51-57 of SEQ ID NO:12, and
- c. the light chain CDR3 comprises a sequence selected from the group consisting of residues 90-99 of SEQ ID NO:4, residues 90-99 of SEQ ID NO:6, residues 90-99 of SEQ ID NO:8, and residues 90-99 of SEQ ID NO:14,
- d. the heavy chain CDR1 comprises the sequence residues 31-35 of SEQ ID NO:16, and
- e. the heavy chain CDR2 comprises a sequence selected from the group consisting of residues 50-65 of SEQ ID NO:16, and residues 50-65 of SEQ ID NO:18, and
- f. the heavy chain CDR3 comprises a sequence selected from the group consisting of residues 90-99 of SEQ ID NO:4, residues 98-104 of SEQ ID NO:18, residues 98-104 of SEQ ID NO:20, residues 98-104 of SEQ ID NO:22, residues 98-104 of SEQ ID NO:24, residues 98-104 of SEQ ID NO:26, residues 98-104 of SEQ ID NO:30, and residues 98-104 of SEQ ID NO:34.

12. The antibody of Claim 1 wherein:

- a) the light chain FR1 comprises a sequence selected from the group consisting of residues 1-23 of SEQ ID NO:4, residues 1-23 of SEQ ID NO:10, residues 1-23 of SEQ ID NO:12, and residues 1-23 of SEQ ID NO:14, or
- b) the light chain FR2 comprises a sequence selected from the group consisting of residues 36-50 of SEQ ID NO:4, and residues 36-50 of SEQ ID NO:14, or
- c) the light chain FR3 comprises a sequence selected from the group consisting of residues 58-89 of SEQ ID NO:4, residues 58-89 of SEQ ID NO:10, and residues 58-89 of SEQ ID NO:12, or
- d) the light chain FR4 comprises a sequence selected from the group consisting of residues 100-109 of SEQ ID NO:4, residues 100-109 of SEQ ID NO:8, and residues 100-109 of SEQ ID NO:12, or
- e) the heavy chain FR1 comprises a sequence selected from the group consisting of residues 1-30 of SEQ ID NO:16, and residues 1-30 of SEQ ID NO:42, or
- f) the heavy chain FR2 comprises the sequence of residues 36-49 of SEQ ID NO:16, or
- g) the heavy chain FR3 comprises a sequence selected from the group consisting of residues 66-97 of SEQ ID NO:16, residues 66-97 of SEQ ID NO:18, and residues 66-97 of SEQ ID NO:42, or
- h) the heavy chain FR4 comprises the sequence of residues 105-115 of SEQ ID NO:16.

13. The antibody of Claim 12 wherein:

- a) the light chain FR1 comprises a sequence selected from the group consisting of residues 1-23 of SEQ ID NO:4, residues 1-23 of SEQ ID NO:10, residues 1-23 of SEQ ID NO:12, and residues 1-23 of SEQ ID NO:14, and
- b) the light chain FR2 comprises a sequence selected from the group consisting of residues 36-50 of SEQ ID NO:4, and residues 36-50 of SEQ ID NO:14, and
- c) the light chain FR3 comprises a sequence selected from the group consisting of residues 58-89 of SEQ ID NO:4, residues 58-89 of SEQ ID NO:10, and residues 58-89 of SEQ ID NO:12, and
- d) the light chain FR4 comprises a sequence selected from the group consisting of residues 100-109 of SEQ ID NO:4, residues 100-109 of SEQ ID NO:8, and residues 100-109 of SEQ ID NO:12, and
- e) the heavy chain FR1 comprises a sequence selected from the group consisting of residues 1-30 of SEQ ID NO:16, and residues 1-30 of SEQ ID NO:42, and
- f) the heavy chain FR2 comprises the sequence of residues 36-49 of SEQ ID NO:16, and
- g) the heavy chain FR3 comprises a sequence selected from the group consisting of residues 66-97 of SEQ ID NO:16, residues 66-97 of SEQ ID NO:18, and residues 66-97 of SEQ ID NO:42, and
- h) the heavy chain FR4 comprises the sequence of residues 105-115 of SEQ ID

NO:16.

14. The antibody of Claim 1, wherein said antibody is selected from the group consisting of L1H1, L1H2, L1H3, L1H4, L1H5, L1H6, L1H7, L1H8, L1H9, L1H10, L1H11, L2H1, L2H2, L2H3, L2H4, L2H5, L2H6, L2H7, L2H8, L2H9, L2H10, L2H11, L2H12, L2H13, L2H14, L3H1, L4H1, L5H1, and L6H1.

15. The antibody of Claim 1 wherein said antibody is a human, humanized, or chimeric antibody.

16. The antibody of Claim 1 wherein said antibody is a monoclonal antibody.

17. The antibody of Claim 1 wherein said antibody is selected from the group consisting of an IgD, IgE, IgM, IgG1, IgG2, IgG3, IgG4, and IgG4 having at least one mutation in a hinge region that alleviates a tendency to form intra-H chain disulfide bond antibody.

18. An isolated polypeptide comprising an IL-4 receptor binding portion of the antibody of Claim 1.

19. The isolated polypeptide of Claim 18, wherein said polypeptide comprises a Fab, F(ab')<sub>2</sub>, scFv, diabody, triabody, or tetrabody.



20. An isolated nucleic acid comprising either
- a) a nucleotide sequence, or the complement thereof, encoding the light chain of the antibody of Claim 1(a),
  - or
  - b) a nucleotide sequence, or the complement thereof, encoding the heavy chain of the antibody of Claim 1(b),
  - or
  - c) a nucleotide sequence, or the complement thereof, encoding a polypeptide comprising an IL-4 receptor binding portion of the antibody of Claim 1,
  - or
  - d) the nucleotide sequence of a) and the nucleotide sequence of b).
21. The isolated nucleic acid of Claim 20, wherein said nucleic acid comprises at least one nucleotide sequence selected from the group consisting of SEQ ID NO:5, 7, 9, 11, 13, 17, 19, 21, 23, 25, 27, 29, 31, 33, 35, 37, 39, 41, 43, 45, 47, 49, 51, 53, 55, 57, 59, and 61.
22. A vector comprising said nucleic acid of Claim 20.
23. The vector of Claim 22 wherein said vector is an expression vector.
24. An isolated cell comprising said nucleic acid of Claim 20.
25. The isolated cell of Claim 24 wherein said cell is a hybridoma.
26. The isolated cell of Claim 24 wherein said cell is a transgenic cell.
27. A method of making said antibody of Claim 1 comprising incubating a cell comprising a nucleic acid encoding the light chain of said antibody and a nucleic acid encoding the heavy chain of said antibody under conditions that allow said cell to express said light chain and said heavy chain and that allow said light chain and said heavy chain to assemble into said antibody, and isolating said antibody from said cell.
28. The method of Claim 27, wherein said cell is a hybridoma.
29. The method of Claim 27, wherein said cell is a transgenic cell.
30. A method of inhibiting an IL-4 receptor comprising contacting a cell expressing an IL-4 receptor with the antibody of Claim 1 under conditions that allow said antibody to bind to said IL-4 receptor, wherein the binding of said antibody to said IL-4 receptor inhibits signal transduction through said IL-4 receptor.

31. The method of Claim 30 wherein said cell is a human cell.
32. The method of Claim 31 wherein said human cell is in a human.
33. A method of inhibiting an IL-4 receptor comprising contacting a cell expressing IL-4 receptor alpha with the polypeptide of Claim 18 under conditions that allow said polypeptide to bind to said IL-4 receptor alpha, wherein the binding of said polypeptide to said IL-4 receptor inhibits signal transduction through said IL-4 receptor.
34. The method of Claim 33 wherein said cell is a human cell.
35. The method of Claim 34 wherein said human cell is in a human.
36. A method of treating a condition in a subject comprising administering to said subject an amount of said antibody of Claim 1 effective for treating said condition.
37. The method of Claim 36 wherein said condition is an inflammatory or cancerous condition.
38. The method of Claim 37 wherein said inflammatory or cancerous condition is an immunological condition.
39. The method of Claim 38 wherein said condition is asthma, septic arthritis, dermatitis herpetiformis, chronic idiopathic urticaria, ulcerative colitis, scleroderma, hypertrophic scarring, Whipple's Disease, benign prostate hyperplasia, a lung disorder in which IL-4 receptor plays a role, condition in which IL-4 receptor-mediated epithelial barrier disruption plays a role, a disorder of the digestive system in which IL-4 receptor plays a role, an allergic reaction to a medication, Kawasaki disease, sickle cell disease, Churg-Strauss syndrome, Grave's disease, pre-eclampsia, Sjogren's syndrome, autoimmune lymphoproliferative syndrome, autoimmune hemolytic anemia, Barrett's esophagus, autoimmune uveitis, tuberculosis, cystic fibrosis, allergic bronchopulmonary mycosis, chronic obstructive pulmonary disease, bleomycin-induced pneumopathy and fibrosis, radiation-induced pulmonary fibrosis, pulmonary alveolar proteinosis, adult respiratory distress syndrome, sarcoidosis, hyper IgE syndrome, idiopathic hypereosinophil syndrome, an autoimmune blistering disease, pemphigus vulgaris, bullous pemphigoid, myasthenia gravis, chronic fatigue syndrome, or nephrosis.
40. A method of treating a condition in a subject comprising administering to said subject an amount of said polypeptide of Claim 18 effective for treating said condition.
41. The method of Claim 40 wherein said condition is an inflammatory or cancerous condition.

42. The method of Claim 41 wherein said inflammatory or cancerous condition is an immunological condition.
43. The method of Claim 42 wherein said condition is asthma, septic arthritis, dermatitis herpetiformis, chronic idiopathic urticaria, ulcerative colitis, scleroderma, hypertrophic scarring, Whipple's Disease, benign prostate hyperplasia, a lung disorder in which IL-4 receptor plays a role, condition in which IL-4 receptor-mediated epithelial barrier disruption plays a role, a disorder of the digestive system in which IL-4 receptor plays a role, an allergic reaction to a medication, Kawasaki disease, sickle cell disease, Churg-Strauss syndrome, Grave's disease, pre-eclampsia, Sjogren's syndrome, autoimmune lymphoproliferative syndrome, autoimmune hemolytic anemia, Barrett's esophagus, autoimmune uveitis, tuberculosis, cystic fibrosis, allergic bronchopulmonary mycosis, chronic obstructive pulmonary disease, bleomycin-induced pneumopathy and fibrosis, radiation-induced pulmonary fibrosis, pulmonary alveolar proteinosis, adult respiratory distress syndrome, sarcoidosis, hyper IgE syndrome, idiopathic hypereosinophil syndrome, an autoimmune blistering disease, pemphigus vulgaris, bullous pemphigoid, myasthenia gravis, chronic fatigue syndrome, or nephrosis.
44. A pharmaceutical composition comprising said antibody of Claim 1 and an excipient, diluent, or buffer.
45. A pharmaceutical composition comprising said polypeptide of Claim 18 and an excipient, diluent, or buffer.
46. The antibody of Claim 1 wherein said antibody does not bind to the murine IL-4 receptor.
47. The antibody of Claim 1, wherein said antibody binds to domain I of the human IL-4 receptor.